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Connecting Europe's Stakeholders in Energy and Transport

**RENEWABLES:
SOLAR & WIND**

**SUSTAINABLE PORTS
AND SHIPPING**

HYDROPOWER

ELECTRIFICATION

DENMARK ENERGY

Includes editorial contributions from:



Kathleen Van Brempt
Member of the
European Parliament



Lars Christian Lilleholt
Danish Minister of Energy,
Utilities and Climate



Isabelle Ryckbost
Secretary General, The
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Foreword

Recent NASA news stories have demonstrated water and heat movement under Greenland's ice cap and documented the inexorable rises in both atmospheric CO₂ and global temperatures. There is cause for concern.

Elsewhere, this year's EUSEW Sustainable Energy Awards feature a range of innovative decarbonisation strategies. Arguably, the Czech project offers the greatest prospect of future benefit through its encouragement of more energy-efficient architecture. Meanwhile, the opening of the £1Bn Walney Extension makes 659 MW Walney Offshore Wind Farm the world's largest. Fortunately, there is also cause for optimism.

In our feature on Denmark, we are delighted that Lars Christian Lilleholt, Minister of Energy, Utilities and Climate explores the new Danish Energy Agreement. He discusses spending plans for a variety of green projects including wind, biogas, energy savings, lowering energy taxes, district heating, climate research and transport. Power generation has become steadily greener over the last decade, and the Danish Government's long-term goal is net zero emissions by 2050. Jan Hylleberg recounts the early approach to investment in wind and how the Energy Agreement envisages at least 2,400 MW from offshore turbines by 2030. Interestingly, he highlights the potential of the North Sea to generate twice as much electricity as Europe's coal-fired power stations.

Kathleen van Brempt MEP discusses decarbonisation of transport, arguing in favour of intervention in pursuit of climate and air quality objectives, whilst "creating or preserving high quality jobs..." Among the many arguments she presents, perhaps the most compelling is that "European automakers are investing seven times more in electrification in China than in Europe. If we are not creating a home market for these technologies, they will eventually be imported."

"It is time to recognise the role European ports can play as nodes of energy, industry and blue economy", says Isabelle Ryckbost. Foreseeing the upcoming 2021-2027 EU budget discussions, she analyses the likely implications for the transport sector – €24.1 Bn, with an addition €6.1 for dual civilian/military uses.

Professor Ulrich S. Schubert, Jan Post and Pirita Lindholm discuss how two European regions are innovating sustainable energy storage solutions (for which, read 'batteries'). Given the unpredictability in supply and potential toxicity of conventional raw materials such as vanadium and concentrated sulphuric acid, their work with salt-water based polymers offers sustainable alternatives at household scale.

We are once again very grateful to Arnulf Jäger-Waldau for a customarily clear, data-based article. Explaining of the benefits of rooftop PV and self consumption of electricity, he sounds warnings about growing dependence on energy imports over the past 25 years and the need for PV capacity to triple by 2030 if we are to meet Paris targets. He goes on to discuss how the rooftop surfaces of multi-apartment buildings or office buildings might represent a widely untapped resource. There is also a regional economic payoff, as in the Podlaskie region in Poland.

The geological record clearly demonstrates that Earth's climate is not constant. What – ironically – generates heated debate is the extent to which man's activities contribute. Adoption of the Geological term Anthropocene by the scientific community is now gaining traction – although this is not without controversy because of political implications for the climate change debate. As long as there remains cause for concern, let us not become as distracted from our objective as Emperor Nero.

For we know what happened to Rome.

As always, there is more for you to read inside...

Michael Edmund
Editor

Ports as spiders in building the sustainable transport and energy web

By Isabelle Ryckbost (pictured), Secretary General, European Sea Ports Organisation

In the next weeks and months, European policy makers will be intensively discussing at different levels and in different fora the budget for the next financial period 2021-2027. The Commission tabled its general budget proposal, the so-called Multi-Annual Financial Framework, on 2nd May, and clarified which envelope it is willing to reserve for Transport. Beginning of June, the Commission issued its “Connecting Europe Facility II”, the proposal outlining the priorities for financing transport, energy and telecom projects for the next years.

Considering the budget constraints that result from the Brexit and the many different policy challenges with which transport has to compete, I think we should embrace the €24.1 billion that have so far been reserved for transport. It remains to be seen however how the new additional envelope of €6.5 billion that has been foreseen for making Europe’s transport infrastructure better prepared for the movement of military transport and assets will be spent. Given the “dual use” criterion, whereby only investments that serve both military and civil purposes will

get support, we must see to what extent this budget can really be considered as an additional 20% for transport investments.

As concerns priorities, the Commission proposes to dedicate 40% of the transport budget to horizontal priorities of which, investments in alternative fuel infrastructure and projects enhancing the resilience of transport infrastructure to climate change are a substantial part. Moreover consistency with the Union and national energy and climate plans is the common thread through the new Connecting Europe facility proposal. Like all other lines of the European budget, 25% of the CEF expenditures must support climate objectives.

European ports are facing huge investments: The study “*The infrastructure investments and financing challenge of European ports*”^[1] commissioned by ESPO, reveals that ports’ investment needs amount to €48 billion for the coming ten years. Even if investing in basic infrastructure remains a first priority, sustainability is becoming an increasingly important driver of port investments: the decarbonisation agenda, building resilience to climate change, the overall greening of vessels, mitigation of air emissions, increasing pressure from the city obliging the port to move further out and greening of hinterland connections are all high on the



investment lists of European ports.

In view of the limited budgets and the huge investment needs across all modes, the Commission is putting a lot of effort in directing ports towards innovative financing instruments.

As ESPO we are convinced that these new financial instruments can play a role but we are equally convinced that many of the environmental investments in ports are having a high societal value, while only a limited and slow return on investment. For these investments, grants remain vital. The investments in On Shore Power Supply are a good example. Investing in OPS, means for many ports, not only investing in the needed equipment on the quay side but also investing in a sometimes

costly connection to the grid. All together a good investment and a good way to lower shipping emissions at berth and to make maritime and port operations more acceptable for the people around the port. But it takes two to tango: the ships must use the installations. Using OPS costs more than burning fuel on board: land-based energy is taxed whereas ship-generated energy is exempted. And even without taxes, there seems to be a price difference in favour of the fuel used on board of ships.

We therefore hope that ports can benefit to a larger extent from support from the Connecting Europe Facility in view of lowering their environmental footprint and accommodating the greening of shipping.

But there is more. We believe that it is time to recognise the role European ports are and can play as nodes of energy, industry and blue economy, which can make of European ports the ideal stage director for developing port areas into nodes of sustainable growth. So far Europe's Transport Infrastructure policy is very much geared to prioritising cross-border projects. Ports risk to miss this boat since, situated in one Member State, they are not perceived as cross-border. Ports however do not only have a huge cross-border impact but also an important cross-sector impact linking transport, energy, industry and blue economy. In view of Europe's decarbonisation agenda, it is time to see how ports can be a spider in the web for guiding Europe through the energy transition. ●

“ It is time to recognise the role European ports are and can play as nodes of energy, industry and blue economy, which can make of European ports the ideal stage director for developing port areas into nodes of sustainable growth. ”

[1] https://www.espo.be/media/Port%20Investment%20Study%202018_FINAL_1.pdf